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Vasanth R. Gaddam

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EXAMINER

JAVAI, JAMAL

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,873	<b>Applicant(s)</b> GADDAM ET AL.	
	<b>Examiner</b> Jamal Javaid	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 5-8, 10-12, 15-18, and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Brete et al. (US Patent Application No. 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566).

Consider claim 1, Brete discloses a digital signal transmission apparatus (**see paragraph 0007 lines 1-2**) comprising:

a multiplexer having an output port (**see elements 186 and 190 in figure 11, which are taken together to collectively constitute said multiplexer**),

an input port for inputting an information bit-stream (**see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2; further, see the multiplexer, element 186 in figure 11, where the inputs it receives include information bit-streams**) and

an input port for inputting a placeholder bit-stream (**see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3**),

for multiplexing the bit-streams inputted from the input ports to form a multiplexed bit-stream for output on the output port (**see paragraph 0066 lines 17-20**);

a data formatter for receiving the multiplexed bit-stream and for replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from an information bit-stream to form a modified bit-stream (**see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together combined, collectively perform the function of said data formatter, as disclosed in paragraph 0067; also, see claim 3**);

an encoder for encoding the modified bit-stream to produce an encoded bit-stream (**see elements 204 and 208 in figure 11 and paragraph 0070**);

a transmitter for transmitting the encoded bit-stream (**see element 202 in figure 11 and claim 62**).

Breti does not specifically disclose replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream.

Bellier teaches replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream (**see abstract, elements 130 and 150, paragraphs 0009, 0011, and 0037, and claims 1 and 2, wherein disclosed**

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**is replacing dummy bits, i.e. bits of a placeholder bit-stream of a given data stream, with further bits of the same data stream, i.e. information bits derived from the same data stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and replace bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream, as taught by Bellier, thus providing an efficient signaling mechanism **(see paragraph 0004).**

Consider claim 2, Breti discloses that the deriving creates a new bit, but retains any bit from which derivation has occurred **(see paragraph 0068, where new bits and information are created after being outputted from the data replacer, but the original bits and information that the new data is created from is still retained).**

Consider claim 5, Breti discloses that the multiplexer is configured with an additional input port for inputting an additional bit-stream **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18).**

Consider claim 6, Breti discloses that the multiplexer is configured to input a plurality of additional bit-streams **(see elements 162, 164, and 166 in figure 11, which**

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**each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18) ,**

**a plurality of information bit-streams (see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2), and**

**a plurality of placeholder bit-streams through their respective input ports (see the multiplexer, element 190 in figure 11, where all four inputs are configured to input placeholder bit-streams, although the top three inputs input placeholder and information bit-streams and the bottommost input exclusively inputs a placeholder bit-stream, as disclosed in paragraph 0066) for said multiplexing to form said multiplexed bit-stream (see paragraph 0066 lines 17-20),**

**each of the information bit streams to be multiplexed by the multiplexer having an identical number of bits (see paragraph 0066 lines 1-3, where each information bit-stream has 3 bytes),**

**each of the placeholder bit-streams to be multiplexed by the multiplexer having an identical number of bits (see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes),**

**the multiplexer being configured to multiplex each of the information and placeholder bit-streams for their respective identical number of bits before selecting another bit-stream for multiplexing (see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting another bit-stream for multiplexing, which is**

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**from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068).**

Consider claim 7, Brete discloses that said multiplexer is further configured to perform said multiplexing so as to select in succession, over a predetermined number of bit-streams, no more than three of said additional bit-streams **(see paragraph 0067 lines 5-8, which discloses that said additional bit-streams are successively selected and multiplexed (from multiplexer 186 in figure 11), which as is apparent from figure 11 and paragraph 0064 lines 3-18, has exactly three additional bit-streams i.e. no more than three additional bit-streams).**

Consider claim 8, Brete discloses that the multiplexer is further configured to perform said multiplexing so as to input in succession one or more of the additional bit-streams after each input of one of an information bit-stream and a placeholder bit-stream **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting the three additional bit-streams for multiplexing, which is from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068).**

Consider claim 10, Brete discloses that said replacing comprises removing selected bits from said information bit-stream within said received multiplexed bit-stream

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and substituting the removed bits to replace bits of said placeholder bit-stream within said received multiplexed bit-stream **(see paragraph 0053 and claim 5)**.

Consider claim 11, Brete discloses a digital signal transmission method **(see paragraph 0007 lines 1-2)** comprising:

multiplexing an information bit-stream **(see the multiplexer, elements 186 and 190 in figure 11 (which are taken together, collectively, to constitute said multiplexing), where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)** and

a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3)** to form a multiplexed bit-stream **(see paragraph 0066 lines 17-20)**;

receiving the multiplexed bit-stream and replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from an information bit-stream to form a modified bit-stream **(see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together combined, collectively perform claimed function, as disclosed in paragraph 0067; also, see claim 3)**;

encoding the modified bit-stream to produce an encoded bit-stream **(see elements 204 and 208 in figure 11 and paragraph 0070)**; and

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transmitting the encoded bit-stream (**see element 202 in figure 11 and claim 62**).

Breti does not specifically disclose replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream.

Bellier teaches replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream (**see abstract, elements 130 and 150, paragraphs 0009, 0011, and 0037, and claims 1 and 2, wherein disclosed is replacing dummy bits, i.e. bits of a placeholder bit-stream of a given data stream, with further bits of the same data stream, i.e. information bits derived from the same data stream**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and replace bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream, as taught by Bellier, thus providing an efficient signaling mechanism (**see paragraph 0004**).

Consider claim 12, Breti discloses that the deriving creates a new bit, but retains any bit from which derivation has occurred (**see paragraph 0068, where new bits and information are created after being outputted from the data replacer, but the original bits and information that the new data is created from is still retained**).

Consider claim 15, Brei discloses multiplexing an additional input port for inputting an additional bit-stream to form said multiplexed bit-stream (**see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18).**

Consider claim 16, Brei discloses that the multiplexer is configured to input a plurality of additional bit-streams (**see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18),**

a plurality of information bit-streams (**see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2), and**

a plurality of placeholder bit-streams through their respective input ports (**see the multiplexer, element 190 in figure 11, where all four inputs are configured to input placeholder bit-streams, although the top three inputs input placeholder and information bit-streams and the bottommost input exclusively inputs a placeholder bit-stream, as disclosed in paragraph 0066)** for said multiplexing to form said multiplexed bit-stream (**see paragraph 0066 lines 17-20),**

each of the information bit streams to be multiplexed by the multiplexer having an identical number of bits (**see paragraph 0066 lines 1-3, where each information bit-stream has 3 bytes),**

each of the placeholder bit-streams to be multiplexed by the multiplexer having an identical number of bits **(see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes),**

the multiplexer being configured to multiplex each of the information and placeholder bit-streams for their respective identical number of bits before selecting another bit-stream for multiplexing **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting another bit-stream for multiplexing, which is from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068).**

Consider claim 17, Brete discloses that said multiplexer is further configured to perform said multiplexing so as to select in succession, over a predetermined number of bit-streams, no more than three of said additional bit-streams **(see paragraph 0067 lines 5-8, which discloses that said additional bit-streams are successively selected and multiplexed (from multiplexer 186 in figure 11), which as is apparent from figure 11 and paragraph 0064 lines 3-18, has exactly three additional bit-streams i.e. no more than three additional bit-streams).**

Consider claim 18, Brete discloses that the multiplexer is further configured to perform said multiplexing so as to input in succession one or more of the additional bit-streams after each input of one of an information bit-stream and a placeholder bit-

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stream **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting the three additional bit-streams for multiplexing, which is from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068).**

Consider claim 20, Brete discloses that said replacing comprises selecting bits from said information bit-stream within said received multiplexed bit-stream, removing selected bits from said information bit-stream within said received multiplexed bit-stream and substituting the removed bits to replace bits of said placeholder bit-stream within said received multiplexed bit-stream **(see paragraph 0053 and claim 5).**

4. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brete et al. (US Patent Application No. US 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566) in further view of Abbott (US Patent No. 6,438,569).

Consider claim 3, Brete discloses replacing bits of the placeholder bit-stream with bits derived from the information bit-stream **(see paragraph 0067 and claim 3).**

Brete and Bellier do not specifically disclose duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream.

Abbot teaches duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits **(see col. 5 lines 30-32, wherein it is disclosed that data on the inputs, i.e. information within the received bit-stream, is duplicated, to form duplicate bites)** and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream **(see claims 16 and 22, wherein it is disclosed that the initial data bits are replaced, i.e. substituted).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and duplicate bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream, as taught by Abbot, thus allowing for systems that are fast, cost-effective, and reconfigurable **(see col. 3 lines 51-53).**

Consider claim 13, Breti discloses replacing bits of the placeholder bit-stream with bits derived from the information bit-stream **(see paragraph 0067 and claim 3).**

Breti and Bellier do not specifically disclose duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream.

Abbot teaches duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits **(see col. 5 lines 30-32, wherein it is disclosed that data on the inputs, i.e. information within the received bit-stream,**

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**is duplicated, to form duplicate bites)** and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream **(see claims 16 and 22, wherein it is disclosed that the initial data bits are replaced, i.e. substituted).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and duplicate bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream, as taught by Abbot, thus allowing for systems that are fast, cost-effective, and reconfigurable **(see col. 3 lines 51-53).**

5. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al. (US Patent Application No. US 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566) in further view of Choi et al. (US Patent Application No. US 2002/0041608).

Consider claim 4, Breti discloses that the multiplexer is configured to multiplex an additional bit-stream in forming said multiplexed bit-stream **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18);**

a data formatter that performs said replacing **(see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together**

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**combined, collectively perform the function of said data formatter, as disclosed in paragraph 0067; also, see claim 3),**

and the encoder is configured to process every bit of said modified bit-stream when operating on bits derived from said additional bit-stream **(see paragraph 0070)** and

to process every other bit of said modified bit-stream when operating on bits derived from said information bit-stream **(see paragraphs 0072 and 0080).**

Breti and Bellier do not specifically disclose that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream.

Choi teaches that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream **(see paragraphs 0052, 0053, and 0054; where it is disclosed that the randomizer, i.e. a data formatter, bypasses replacing when operating on multiplexed additional and ATSC data, i.e. the additional bit-stream within said received multiplexed bit-stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the data formatter configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream, as taught by Choi, thus allowing a DTV system robust to noise **(see paragraph 0016).**

Consider claim 14, Breti discloses that the multiplexer is configured to multiplex an additional bit-stream in forming said multiplexed bit-stream (**see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18);**

a data formatter that performs said replacing (**see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together combined, collectively perform the function of said data formatter, as disclosed in paragraph 0067; also, see claim 3), and**

the encoder is configured to process every bit of said modified bit-stream when operating on bits derived from said additional bit-stream (**see paragraph 0070)** and

to process every other bit of said modified bit-stream when operating on bits derived from said information bit-stream (**see paragraphs 0072 and 0080).**

Breti and Bellier do not specifically disclose that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream.

Choi teaches that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream (**see paragraphs 0052, 0053, and 0054; where it is disclosed that the randomizer, i.e. a data formatter, bypasses replacing when operating on multiplexed additional and**

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**ATSC data, i.e. the additional bit-stream within said received multiplexed bit-stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the data formatter configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream, as taught by Choi, thus allowing a DTV system robust to noise **(see paragraph 0016).**

6. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al. (US Patent Application No. US 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566) in further view of Knutson et al. (US Patent No. 6,788,710).

Consider claim 9, Breti discloses that the plural bit-streams are identical in length **(see paragraph 0066 lines 1-3, where each information bit-stream has 3 bytes and see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes).**

Breti also discloses inputting of one of an information bit-stream **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)** and a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3).**

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Breti and Bellier do not specifically disclose that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream.

Knutson teaches that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams **(see figure 4, where the bit-streams inputted to multiplexer 44 (one of an information bit-stream and one of an auxiliary and null bit-stream) are alternated; further disclosed in col. 4 lines 46-67)** between an information bit-stream and a placeholder bit-stream **(see col. 5 lines 1-7, where datastream 30 is an information bit-stream and the null stream is a placeholder bit-stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream, as taught by Knutson, thus allowing simple and efficient means to insert auxiliary data into a datastream **(see col. 2 lines 16-20).**

Consider claim 19, Breti discloses that the plural bit-streams are identical in length **(see paragraph 0066 lines 1-3, where each information bit-stream has 3**

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**bytes and see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes).**

Breti also discloses inputting of one of an information bit-stream **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)** and a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3).**

Breti and Bellier do not specifically disclose that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream.

Knutson teaches that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams **(see figure 4, where the bit-streams inputted to multiplexer 44 (one of an information bit-stream and one of an auxiliary and null bit-stream) are alternated; further disclosed in col. 4 lines 46-67)** between an information bit-stream and a placeholder bit-stream **(see col. 5 lines 1-7, where datastream 30 is an information bit-stream and the null stream is a placeholder bit-stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Brete and Bellier and have the inputting

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of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream, as taught by Knutson, thus allowing simple and efficient means to insert auxiliary data into a datastream (**see col. 2 lines 16-20**).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal Javaid whose telephone number is 571-270-5137. The examiner can normally be reached from 8:00-5:00

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe, can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Aung S. Moe/  
Supervisory Patent Examiner, Art Unit 2616

Jamal Javaid  
/Jamal Javaid/  
Examiner, Art Unit 2616

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